



SHIPPING AWARENESS TRAINING for RESEARCH MATERIALS

IMPORT/EXPORT, Materials of Trade Requirement

University of Massachusetts
Amherst
Environmental Health & Safety
Research & Engagement



























eShipGl@bal

New Shipping Service

UMass has developed a new mandatory tracking system with eShip Global to provide better management for shipments of:

- Chemicals
- Biological substances, including plant pathogens and agents carrying rDNA
- Samples with dry ice or liquid refrigerants
- Research samples or any other materials that could contain dangerous goods in any amount (e.g. biological samples in ethanol)
- Live animals
- Items shipped to another country or within the US
- Intellectual property
- Lithium ion batteries

eShipGl@bal

Shipping Regulations

A variety of national and international agencies regulate the transport, exporting, and importing of research materials. These agencies can include but are not limited too:

- International Air Transport Association (IATA)
- U.S. Department of Transportation (DOT)
- U.S. Environmental Protection Agency Toxic Substances Control Act (TSCA)
- U.S. Department of Homeland Security (DHS)
- U.S. Department of State, Directorate of Defense Trade (DDTC)
- U.S. Department of Commerce (DOC)
- U.S. Department of Agriculture Animal and Plant Health Inspection Service (USDA APHIS)
- U.S. Department of Treasury, Office of Foreign Asset Control (OFAC)
- Centers for Disease Control and Prevention (CDC)
- U.S. Fish and Wildlife Service (USFWS)



Research Materials

Many research materials can be regulated by one or more of these shipping regulations if they are offered for transport or exported to another person, facility, or university.

What is an Export?

An item sent from the United States to a foreign destination such as biological, chemical, and radioactive materials.

Or

An item sent to a foreign national within the US as a domestic shipment

These restrictions can apply to regulated materials, equipment, technology and technical data

These items are generally sent using a carrier such as FedEx, World Courier, the US Postal Service, or DHL.

Impact on Research

Failure to follow shipping/export regulations may result in the following:

- Package delays during transport
- Mishandling by the courier
- Potential for an inadvertent release of the contents
- Criminal and civil penalties accruing to the individual

Complying with shipping regulations protects the material being shipped, those individuals handling the package, and controls the potential for negative impacts on the environment.

Export Penalties

Violation of Export regulations:

- Fines & penalties up to \$1,000,000
- Imprisonment
- Export privileges can be revoked

For example, The University of Massachusetts at Lowell was recently fined \$100,000 for an unlicensed export of atmospheric sensing equipment to Pakistan's Space and Upper Atmosphere Research Commission ("SUPARCO").

Hazardous Material Identification Some Common Examples

UN Number	Proper Shipping Name	
UN3373	Biological Substance, Category B	
UN1230	Methanol	
UN3090	Lithium battery	
UN1845	Dry Ice	
UN 3245	Genetically Modified Microorganism	

Shipping Restrictions

Research materials may NOT be hand carried onto an aircraft in any manner AND must not be transported in a personal vehicle

eShipGl@bal

IATA/DOT Requirements

- EH&S will assist and approve all DOT/IATA shipments which include defined Dangerous Goods such as ethanol, preservatives and chemicals with a UN number
- DOT/IATA shipments must be conducted by an IATA trained person (initially a minimum of 16 hours renewed every 2 years)
- Exceptions: Category B and dry ice shipment training is conducted through
 OWL and individuals with current training can do this without assistance
- Containers must meet certain specifications
- Shipping papers must be exact
- Shipments must be packed in accordance with packing instructions
- Labels must be correct and placed according to specifications
- Rejection will cost time and money

eShipGl@bal

Current Transport Providers

- The University has a preferred agreement with UPS with special rates negotiated with eship Global
- This agreement includes Category B and dry ice shipments
- Fedex rates are also in the system specifically as a back-up or for locations not served by UPS
- Final pricing based on the negotiated rates are in the system and cannot be changed
- Other Fedex accounts can be used, if provided, such as a receiver's account

Training

OWL Training is available for:

- Dry ice shipments (any quantity)
- Category B biological substances

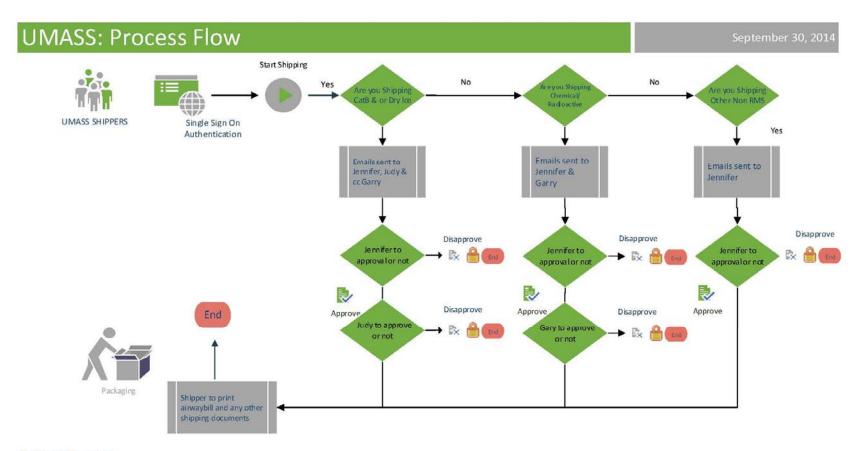
http://www.ehs.umass.edu/owl-online-training

Individuals that have completed this training can use eship to process their packages for these categories without EH&S assistance

Eship awareness training is required for non-regulated shipments

eShipGl@bal

Work Flow



Confidential Property of eShipGlobal Inc.



Features of eShip

Secure, safe and compliant

Integrates with UMass systems, shipping / financial / authentication

Customized for UMass and reduces bottlenecks

Create multiple material databases

Produce accurate shipping documentation

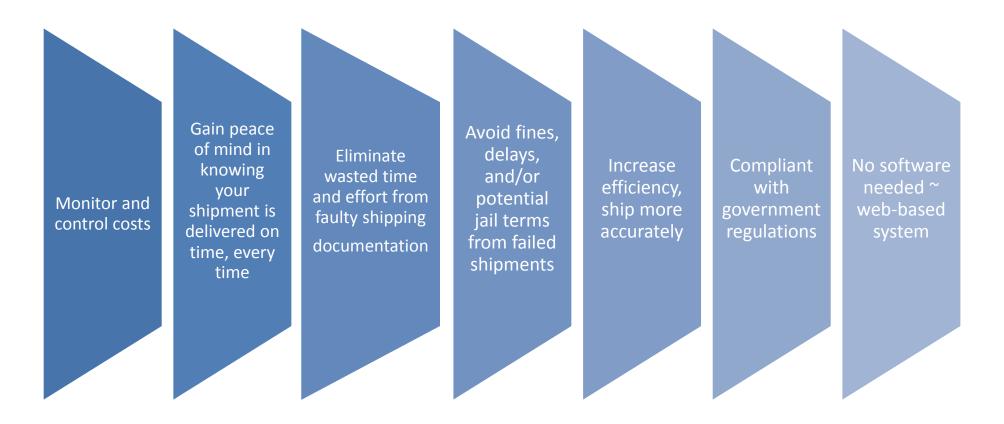
Properly mark and label your packages

Print/Save/Forward shipment information to airline and shipping carriers

Forward shipment information to Emergency Response Providers (ERP)

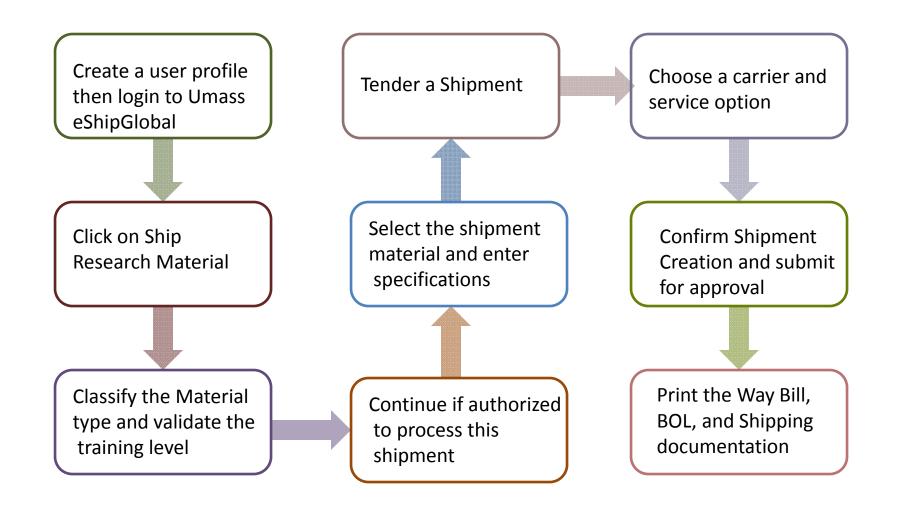


Expectations



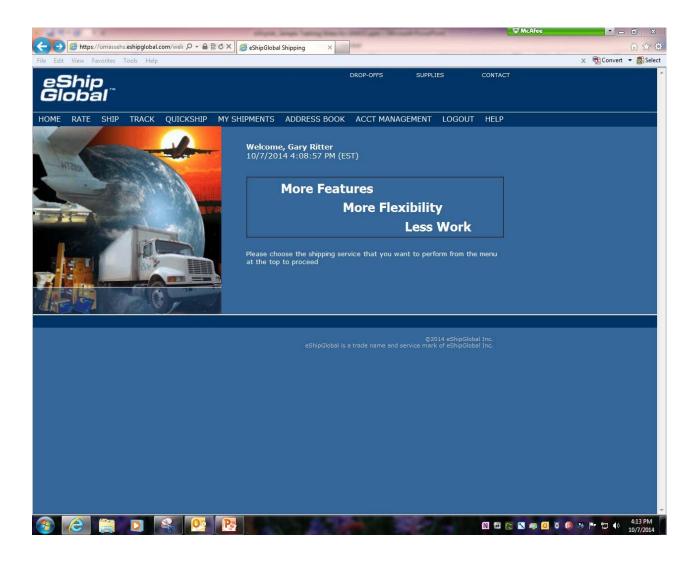


Overview - Create a Lab Shipment



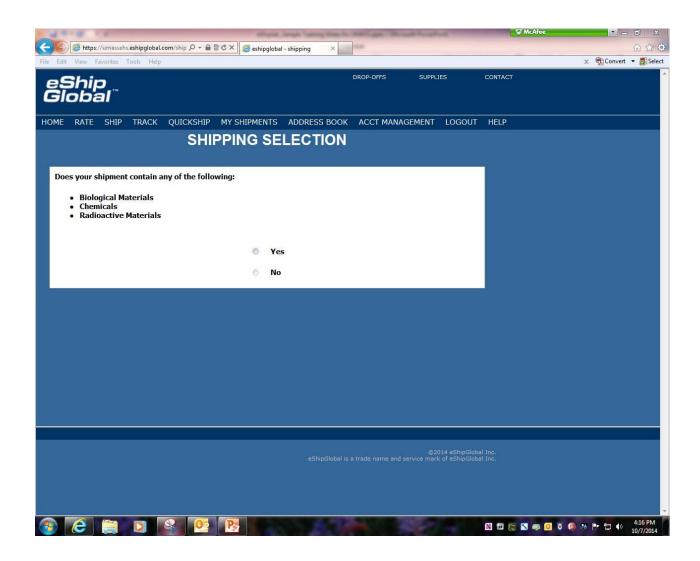


Sample Shipment



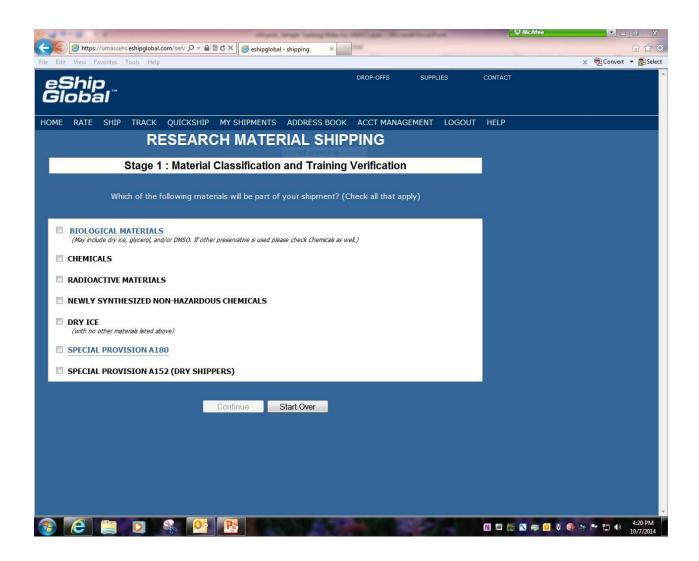


Starting a Shipment

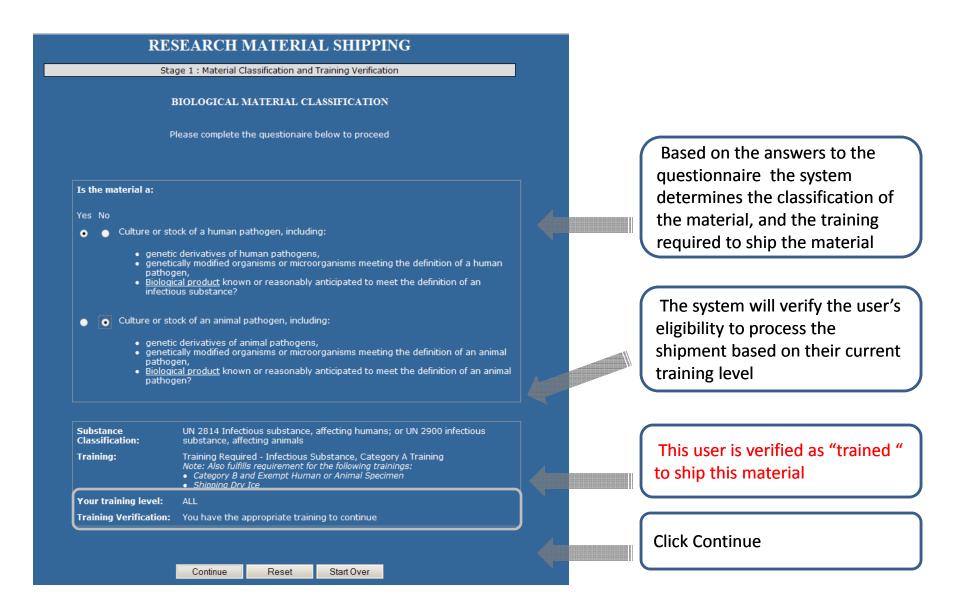




Classification



Material Classification & Training Verification eship Global



Material Classification & Training Verification eship Global



The system will verify the user's eligibility to process the shipment based on their current training level. This user will not be allowed to continue with the shipping



Material Selection

RESEA	ARCH MATERIAL SHIPPING	
Stage 2 : Material Selection		
Identify the research material that	MATERIAL DATABASE you plan to ship. Then click Continue button to proceed to Shipment deta	ails.
Required fields are indicated by an Material Entry	asterisk.	
	UN 2814 Infectious substance, affecting humans	Pro
*Material Name: UN NO:		ser
Proper Shipping Name:	Infectious substance, affecting humans	
Class Or Division: Packing Group:		Ba cla
Labels:	Infectious sub	loa
Packing Instructions:	620	red
Special Permit:		ins
<u>Authorization:</u>	Not Required 💌	
	Dangerous goods in excepted quantities? (FORBIDDEN)	
	Dangerous goods in limited quantities? (Max. Net Qnty: FORBIDDEN)	
_	Cargo aircraft only? (Max. Net Qnty: 4 L)	
Maximum Quantity per inner receptacle:		
*Total Quantity in Package:	ml (Max. Total Qnty: 0.05 L)	
*Net Value in USD(Min. 1):		
		Clic
Add anoth	er material Continue Start Over	

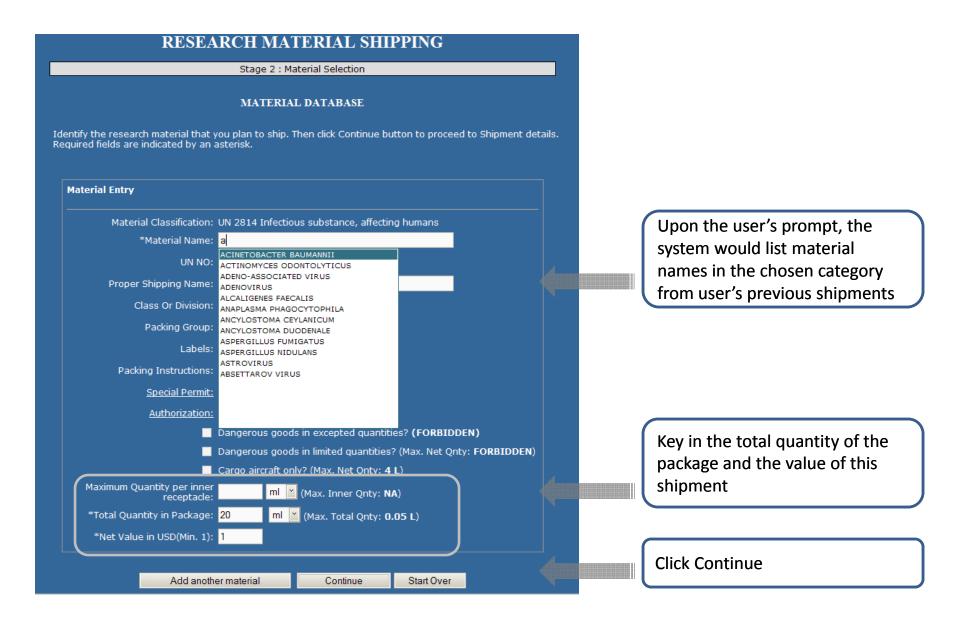
Provide exact name not generic category, e.g. protein from rat serum (not just protein)

Based on the material classification, the system preloads the UN Number, the class, required label and the packaging instructions from the IATA table

Click Continue



Material Selection





Shipment Creation



The system would auto-populate the Sender information based on the user's profile

The address book feature facilitates time-less address entry of the receiver

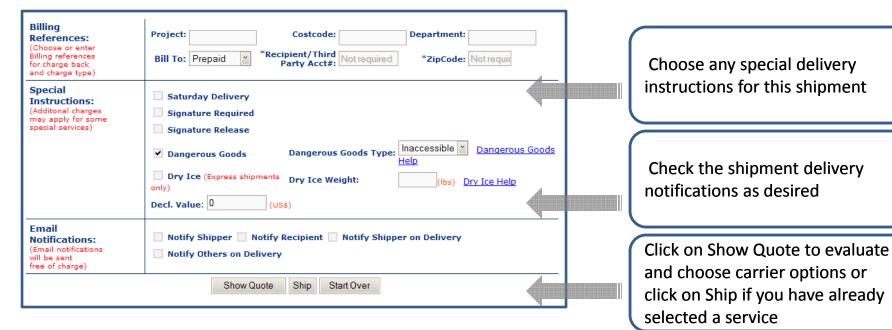
The system generates the material information filed out in the "Material Selection" stage here

Select a package type, service type, total weight of the shipment and dimensions (need the box present)

Enter the Billing references information – Carrier Account number and the billing zip code



Shipment Creation



Clicking on 'Show Quote'/'Ship' would validate the shipment with the RPS database





Compliance Checker - Failure



The message indicates that shipment failed validation with RPS database

Shipment cannot be continued

The message indicates that shipment cleared validation with RPS database, however failed to clear Export Control database



Compliance Checker

Please wait while we check this shipment for Compliance ...

Validating address with RPS database...



Validating material with Export Control database...



Compliance check failed. Please click on the Edit Shipment button below to edit the shipment, or the Override button below to continue.

The destination country is regulated for the selected material. Please find details below:

ECCN: 1C351

Status: Country of destination regulated by the Country

Chart.

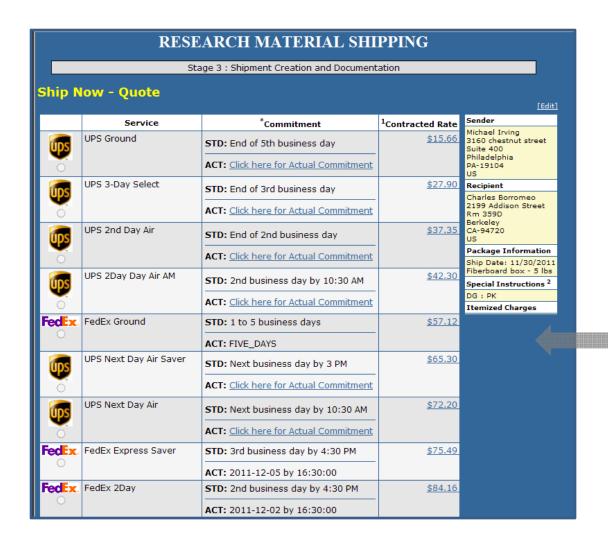
Control.Reason: Chemical and Biological Weapons (CB) Column 1^

OtherControls: Chemical Weapons Convention (CW)

Exceptions: LVS: N/A GBS: N/A CIV: N/A



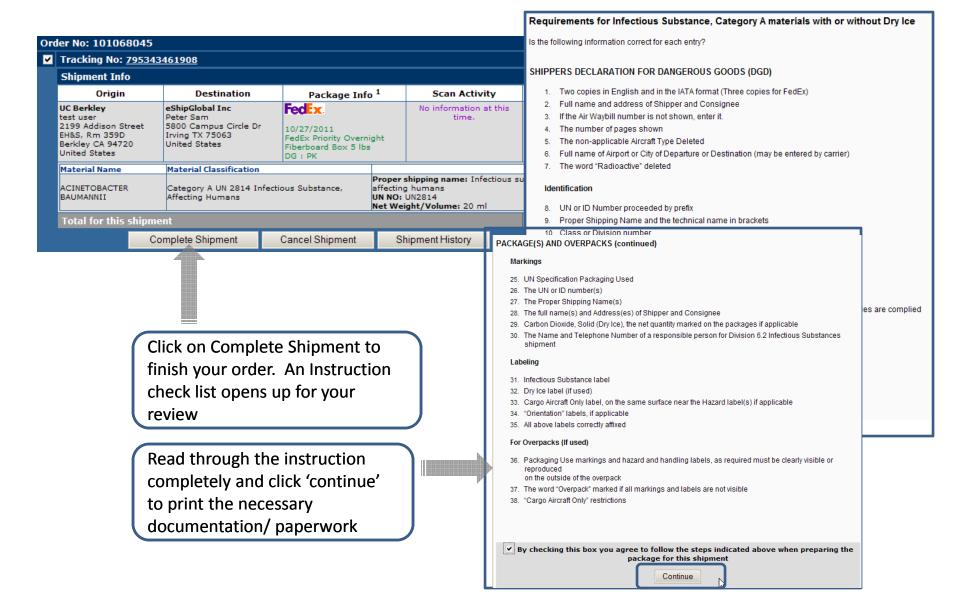
Carrier/ Service Selection



Choose one of the carrier service options available for this shipment and be informed of the estimated cost. Click Continue to proceed



Complete Shipment





Order Summary

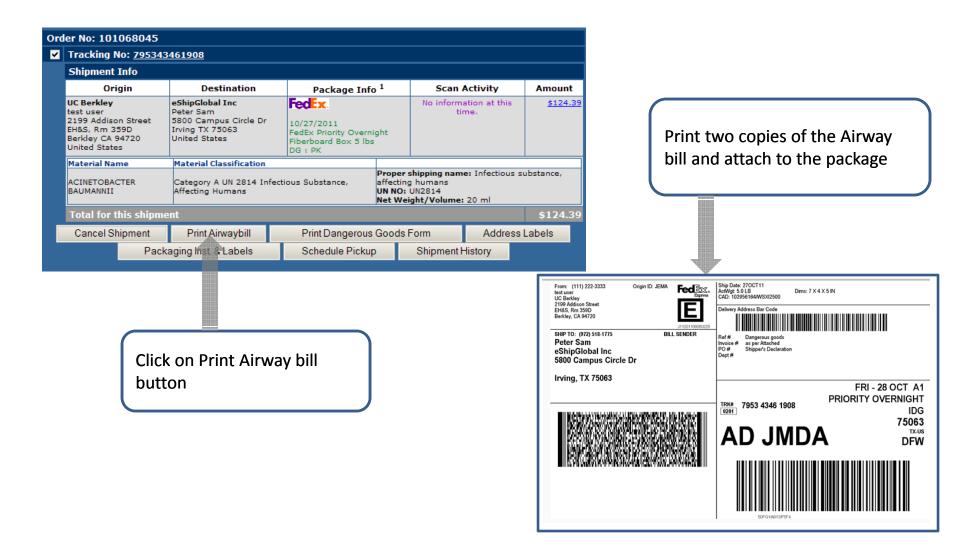


International Shipment order summary



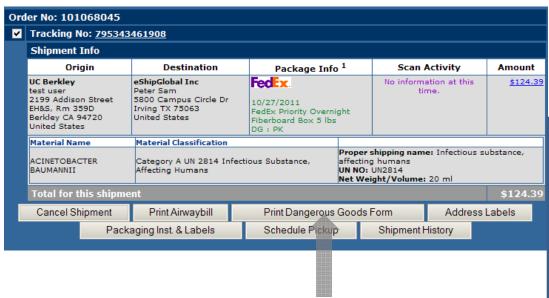


Print Airway bill

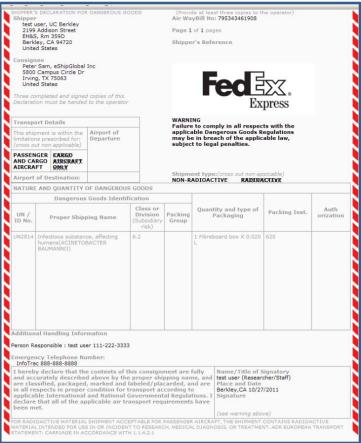




Shipper's Declaration Form



Click on the Print Dangerous Goods form and attach the Shipper's declaration to the lab shipment

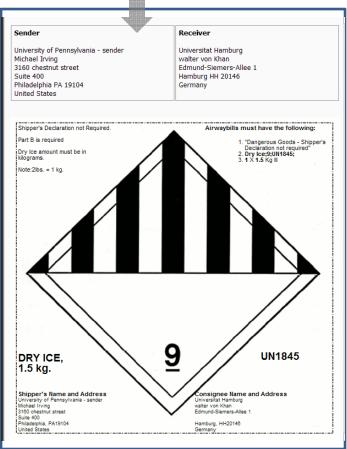




Address Labels

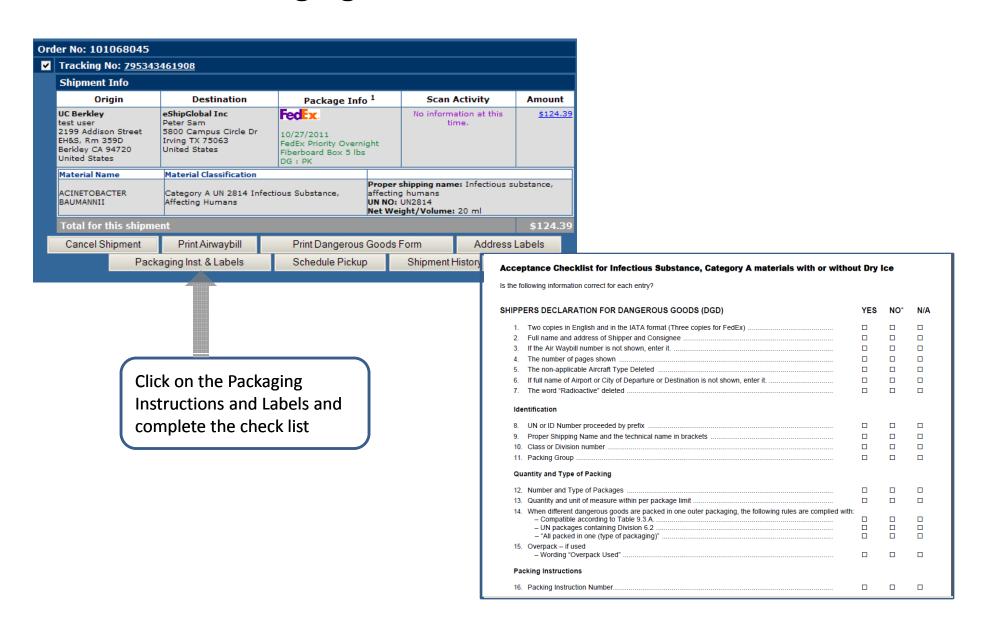


Print the sender's and receiver's address information. For Dry Ice Shipments, the address label would include the dry ice symbol



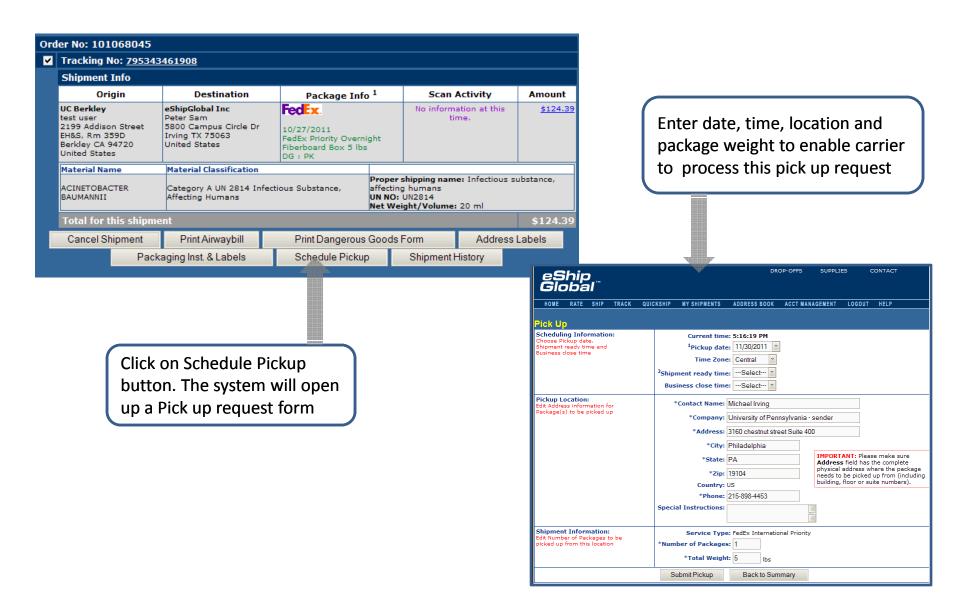


Packaging Instruction and Labels



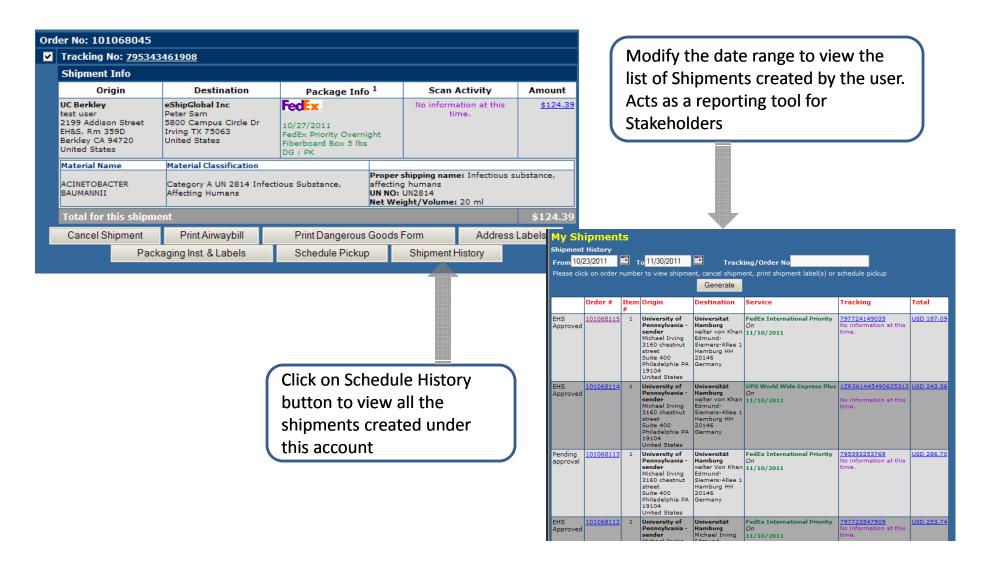


Schedule Pick up



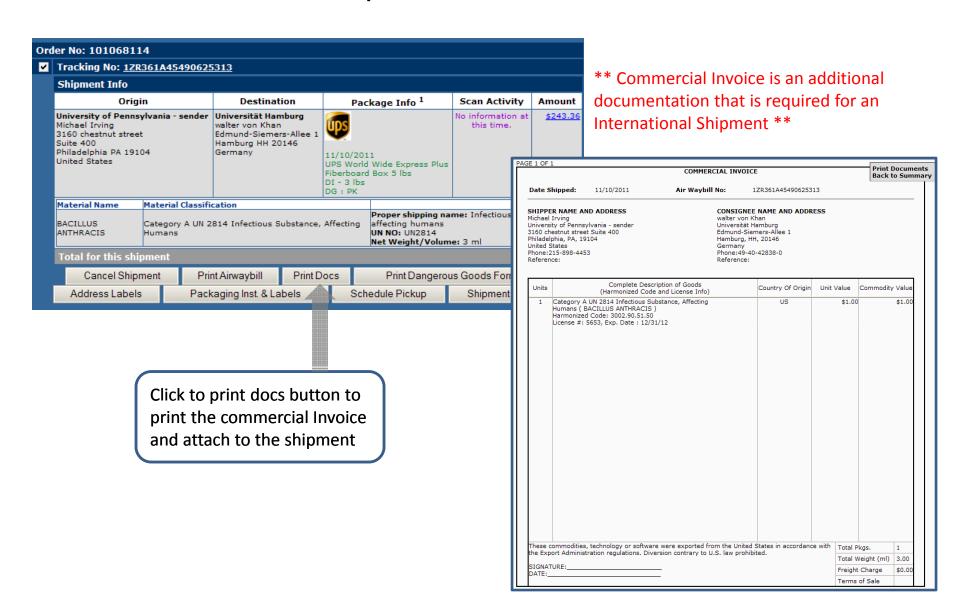


Shipment History



International Shipment - Commercial Invoice eshipGlobal





eShipGl@bal

Things to Know

- UPS/Fedex must receive pick-up request at least 2 hours before pick-up
- Pick-up time is 3:30 at LGRT 179 (CEMS), good planning will avoid delays
- Alternate pick-up locations will be made available eventually
- It is best to ship dry ice shipments Monday-Wednesday since there is about a 5 day preservation period
- Dry shippers that use liquid nitrogen are not regulated and can keep a sample for up to 15 days
- Countries have rejection authority over shipments and we may not get it back e.g. China
- There are currently 2 IATA trained employees on campus
- All shipments must be reviewed for export requirements
- Know your box dimensions and approximate weight before you start
- Approval will be as fast as feasible, typically within one day
- Rejections by the hauler will be returned with a surcharge
- Costs are billed to a valid Procard